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ABSTRACT

It is possible to construct a case for the child's interpretation of "of" in "must of been" as the preposition "of" in the process of language acquisition. Assuming the familiar concept that linguists should construct the simplest analysis compatible with a phenomenon, it is suggested that some children construct a simplest analysis of such utterances as inevitably containing "of," using a grammar allowing such a structure. Evidence supporting such a structure comes from such constructions as the infinitive, where the word "to," a word with certain unambiguously prepositional functions, occurs ("to do"). If the learner eventually acquires standard English and demonstrates this by writing "must have been," he has replaced this earlier grammatical guesswork with a structure more normally and traditionally considered appropriate for the mature standard dialect.

(MSE)

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## A SOLUTION TO THE 'MUST OF' PROBLEM\*

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The 'must of' phenomenon is a familiar one to parents, lexicographers, pedants and developmental psycholinguists. It has been recognized since 1837 (see the numerous quotations in *OED Supplement* (1933) and *OED Supplement III: O-Scz* (1982)). It was at first considered 'US dialect or colloquial' (1933 Supplement), though this can scarcely be the way it is evaluated today. It consists of the utterance of the word *of* ([ɒv]) after the modals *must*, *should*, *would*, *could*, *might* and their negatives, and occasionally in perfective aspect infinitival complements (i.e. the *I ought to have done it* type), instead of 'adult', standard *have*. Such utterances take place in one of three sets of circumstances:

- (1) in accented clause-final position in elliptical utterances like *I haven't, anyway - Dad might of* (ex inf. JP); *I thought I'd turned it off, but I couldn't of* (ex inf. MB). Here it receives an unreduced form as it would if it were genuinely the preposition *of*; notice that 'real' *have* here would be unaccented and in an unreduced form.

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- (2) when a young child in all circumstances uses unreduced spoken forms of all those English words which exhibit both reduced and unreduced forms:<sup>1</sup> as in *I could of done it* (child aged 6,9; ex inf. TP). (Note that children under the age of 7 are rarely reported as using *must* or certain other relevant modals.) This is occasionally done for obscure reasons by older people, thus *One thief must of been fighting the other* (XZ aged 12,3); *We really should of invited DD to dinner by now* (AB, adult; ex inf. MM). The examples cited here may no longer be checked, as one does not leave the tape-recorder going just in the hope of catching material of this kind. Thus it is not certain whether the speakers' use of unreduced *of* was in 'free' variation with the reduced form at the age and time at which they uttered it.
- (3) when a literate person of any age writes *of* for the standard perfective aspect marker *have*, irrespective of the way they pronounce it: *I never would of married in the world* (1844); *I might of been glad when he went off with that bloody moll* (1946) (for these two see *OED Supplement III*, p. 24); *During the babbling period several sounds will of been used.....* (undergraduate essay, University of Q, 1986); ..... *hypotheses about why he might of acted in a certain way* (exam script, University of R, 1987; ex inf. JP); *this is the kind of description of results which should of.....* (a case reported as a self-corrected slip of the pen by HP); *I'd of liked* (cited as a type by Randolph Quirk in *The Independent*, 12/11/86); etc.

(Note that example sets (1)-(3) include every instance of this variable phenomenon that has come to my attention during the twelve months prior to submitting this paper; it seems to be common but elusive.)

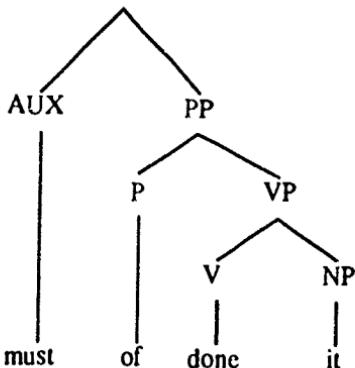
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<sup>1</sup> In the case most familiar to me (XZ for much of the latter part of her third year), the articles were excepted from the list of items that occurred unreduced. The terms (*un*)reduced are understood in the familiar way without my being committed here to any particular viewpoint on the nature of the phonological processes involved.

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Those few writers who mention the matter, typically writers of prescriptive manuals, regard it as a 'gross solecism' and leave it at that (Partridge 1947 and every subsequent printing; Bailey 1976: 59). The phenomenon is usually 'explained' by saying that the form [əv] is susceptible of analysis as a reduced form of both *have* and *of*, and that utterers of the types of expression mentioned in (1)-(3) have chosen the wrong one (thus Fieldhouse 1982). But it is obvious that this is only the groundwork for a proper explanation. Why do errors of the type \*\**What have you thinking have?* not occur? And what licenses the interpretation of [əv] as *of* in syntactic environments where an aspectual marker rather than a preposition is apparently so obviously required? The latter is the crucial question. For if utterers of the relevant utterances interpret [əv] as *of*, they are arguably internally committed, in some sense, to analyses like (4), saving only the possibility of structure intervening between the nodes PP and VP, because *of* is quite unambiguously prepositional in all its other uses, even though it has a range of distinguishable senses.

(4)



(The highest node in this subtree is labelled following usual assumptions about the notion of headship, and nothing further is implied by the label.) But how on earth can it be that a preposition may have a VP complement? So far as I know there are only two published suggestions to this effect within modern grammatical traditions (Starosta 1977;

Emonds 1985: 89-90), although the view may be implicit in some other work (cf. Pullum 1982: 191, 194-5). Starosta's proposal, formulated within his 'lexicase' theory, relates to the 'complementizer' *to*, and the question of the status of *to* will be taken up again below. Emonds argues that [P VP] is a suitable analysis for certain s-structure gerunds introduced by complementizers, which in his theory are prepositions (1985: 281-332); in such structures VP is a transformational reduction of a sentence.<sup>2</sup> There are, of course, apparent instances of lexical prepositions in construction with VP in English (*keen on doing linguistics*), and therefore also of stranded prepositions in effect lexically representing PP/VP (a prepositional phrase with a verb phrase hole in it), e.g. gerunds in pseudo-cleft constructions (*What I'm keen on is doing linguistics*). A traditional Latina<sup>3</sup> grammatical model, and the reductionist approach of Hendrick (1978), would analyse the relevant phrases as NPs, however one might analyse the structure *within* the NP. But even if Emonds' analysis is correct, it is scarcely developmentally credible that such constructions could serve as a model for a child acquiring the complements of modal verbs that we are examining.

I shall argue now that trees like (4) instantiate a (NB not *the*) proper analysis of these phenomena, and allow readers to infer that some real children construct in their heads structures of precisely this type.

Our point of departure is the familiar view that linguists should aim at constructing the simplest analysis compatible with the phenomena under description, usually backed by the entirely questionable assumption that that is what real people (and even children) do. This requirement may lead to conflict between notions of simplicity applied in different sectors of the linguistic system. Thus since, in analyses other than Starosta's, prepositions regularly and uniquely govern NP in standard English, to admit trees of type (4) would reduce the simplicity of the syntactic description of prepositional phrases. *Done it* is clearly not

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<sup>2</sup> Other proposals put forward for expanding the range of complements permitted to prepositions have concentrated on the possibility of [P S], e.g. Jackendoff (1973), van Riemsdijk (1978: ch. 3).

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an NP, e.g. it does not permit pseudo-clefting or other varieties of topicalization and cannot be pronominalized. On the other hand, it would clearly reduce the simplicity of the lexicon if we denied that the *of* in (4) really was an instance of the preposition *of*, in the sense that we might reasonably resist the admission of homonymous items to the lexicon except as a last resort.<sup>3</sup> Let us say that both of these analyses (a redundancy rule to the effect that P always governs NP, and a categorical statement that *of* is a preposition) are, in some sense, simplest analyses, and guess that the child aims to construct a simplest analysis, without our being able to predict, in individual cases, which one that will be.

Let us now suppose that some children construct a simplest analysis of utterances involving [əv] as invariably containing *of*.<sup>4</sup> If they do, they need a grammar permitting structures like (4).<sup>5</sup> Consider the sentences in (5):

<sup>3</sup> We do not need to search far for historical lexical changes which create homophony 'designed' to eliminate lexical obscurity, e.g. the replacement of *bridegoom* by *bridegroom*, where the last syllable can, as a result of the change, be interpreted as literally containing the more transparent element *groom*. Reinterpretations may trend the same way. Consider the product of accidental homonymy in the expression *ear of wheat*; this may, unhistorically, be seen as containing a metaphorical use of the ordinary word *ear*. For extensive discussion of similar things, see Coates (1987). Analyses which bring together senses of lexical elements which are apparently wildly at variance with each other are usually highly prized by linguists, and there is a rich anthropological literature on such matters. For just one, cf. Leach (1958), where the author seeks to reconcile the apparently disparate senses of the lexeme *tabu*, as used in Trobriand society, in rebuttal of Malinowski (1935: 28, 113); though against Leach see Chowning (1970). See also Grillo, Pratt and Street (1987: 277).

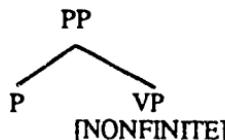
<sup>4</sup> I mean [əv], and not the [v] which clearly represents an auxiliary element contrasting with third-person singular [z], as in *I've/you've/she's/we've/they've*, which is a categorically vowelless enclitic, and which always seems to be analysed in this way.

<sup>5</sup> It might be possible to bolster the argument by adducing the analogy of gerundial forms after prepositions (cf. above), as in ((*I'm fed up*) of *doing this*), but as already noted the gerund is susceptible of other analyses than

- (5) You ought to [tə] do it.  
 You must of [əv] done it.

Assuming that lexical simplicity demands, for this child, an unambiguous lexical category assignation for *to* as well, the child has a *prima facie* case for admitting constructions of type (6), since *to* has certain unambiguously prepositional functions,<sup>6</sup> as in directional phrases, indirect object phrases, etc.

(6)



Notice that *to*, like *of*, displays a full form ([tu]) and a reduced form ([tə]). Children who produce unreduced forms in all circumstances

the one which makes it a VP, and is therefore a less convincing analogy; the traditional analysis as a NP appears valid from a distributional viewpoint. Of course I do not rule out the possibility that some developing speakers analyse this construction as [P VP]. At all events *done it* is far more unambiguously NOT an NP than *doing it*.

<sup>6</sup> Pullum (1982: 191-5) brings forward ten good arguments why 'complementizer' *to* is not a preposition in adult standard English, and I accept those arguments. His claim that *to* is an auxiliary verb does not of course entail that all occurrences of *to* are verbs. I am suggesting here only that an economical first hypothesis, by a learner or a linguist, might be that such a word was a unitary lexical item. In arguing against 'complementizer' *to* being a preposition however, he states that 'no other prepositions.... take uninflected VPs as complements' (191). I hope to have shown here that a dialect of English exists where a preposition could be analysed as taking a nonfinite inflected VP. I note with interest the paper by Bloom, Tackeff and Lahey (1984), where the acquisition of 'complementizer' *to* is studied. The authors conclude that *to* is acquired first as a VP-complement marker, not as an infinitive marker, and that its usage appears to depend on a 'directional' interpretation, i.e. one which is prepositional *par excellence*. (The last inference ('i.e....') is mine, not the authors').

((2) above) do so for both these prepositions. It is true that the distribution of the adult prototypes for the unreduced forms of *to* and what we are taking to be *of* (subsuming unaccented *have*) are not precisely identical, in that [tu] is required clause-finally, as is prepositional [ðv], but not [hæv] as an auxiliary. But this item is exceptional in being the only unaccented item which is not a pronoun admissible in English in utterance-final position with a reduced vowel.<sup>7</sup> Those who say *I must of* (cf. example (1)) have ironed out this irregularity. I suggest therefore that despite this minor disparity in the behaviour of *to* and putative *of*, a *prima facie* case could be constructed that: just as *to* is characteristically a preposition; just as it occurs in a reduced pronunciation in determinable environments; just as it could be construed as subcategorizing for a nonfinite VP - so too does *of*. They differ, under this analysis, in that *to* subcategorizes for VP[NONFINITE, INFINITIVE] whilst *of* subcategorizes for VP[NONFINITE, PERFECT PARTICIPLE].

I have shown how it is possible to construct a case for the interpretation of [əv] in *must have done* (etc.) as the 'preposition' *of*, using principles which do not strike me as controversial even if the analyses to which they lead are.<sup>8</sup> Clearly if the learner eventually acquires standard English, and demonstrates this by writing *must have done* (etc.<sup>9</sup>),

<sup>7</sup> It is of considerable interest that one of my informants ('YZ aged 5,10) began producing reduced forms of precisely *to*, in its complementizer function (*I don't want to*), and of no other 'preposition', in utterance-final position, thereby paralleling her now correctly acquired reduction of *have* in the same position. This suggests some kind of affinity between the two items for at least one maturing English-speaker. Cf. also Pullum (1982: 212, note 12).

<sup>8</sup> Bybee (1985: 42) argues that the grammatical force of the change from *have to of* is from a marker of aspect to one of tense. She is concerned to account for the 'usability' (as she sees it) of the modal and the word in question, rather than to provide a grammatical analysis suitable for those lects in which it occurs. Her account does not appear to say anything about the significance of the substitution of *of*.

<sup>9</sup> This is likely to be the only evidence ever produced for the acquisition of the standard construction, as the conversational potential for the pronunciation of the full form [hæv] in expressions like *We should have*

then he or she has replaced the rough-and-ready (but principled) guess-work of the solution offered here by one more that normally and traditionally considered to be appropriate for the mature standard dialect.

It seems to be well established that it is in the nature of adpositions to govern NPs alone, i.e. this is a universal in the present state of our knowledge. If children and other learners are indeed able to construct theoretically impermissible analyses which violate universals, and even construct apparently absurd ones, then the consequences for universalist-nativist approaches to language acquisition are very interesting: the domain in which such approaches are deemed to have explanatory value must be reduced in proportion to the numbers of such constructions discovered.

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*gone there* is very limited indeed, except in over-careful reading aloud. Only neurotic doubt prevents me from asterisking it.

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